Chiem MAT 115 Homework 1

This homework set is due **Tuesday, September 9**. As a reminder, you are welcome to work with other students, but please write your solutions on your own. I'd like you to use RMarkdown. You can modify this file, or you can start a brand-new file. Please knit the file after you are done. You should turn in both the RMarkdown source file and the knitted pdf file.

1. In a few sentences, explain one thing that you may worry you about this course.

I am worried that the workload might increase greatly and I will struggle a lot balancing it with my other classes. I am also worried about how the projects are structured and whether I will be able to complete them adequatley.

2. What is one skill you hope to gain (or improve upon) in this course?

I hope to gain skills in R and more comfortability with dealing with large data sets. I want to be able to understand what I am looking at and be able to extract something from it. I also want to improve my skills in analysis.

3. Pick one of the datasets that comes with the `dslabs` package (not `murders`, `stars`, or `movielens`) and write down the variable names in the dataset and what type of variables they are.

```
library(dslabs)
str(murders)
```

```
## 'data.frame':    51 obs. of  5 variables:
##  $ state     : chr  "Alabama" "Alaska" "Arizona" "Arkansas" ...
##  $ abb       : chr  "AL" "AK" "AZ" "AR" ...
##  $ region    : Factor w/ 4 levels "Northeast","South",..: 2 4 4 2 4 4 1 2 2 2 ...
##  $ population: num  4779736 710231 6392017 2915918 37253956 ...
##  $ total     : num  135 19 232 93 1257 ...
```

```
# state - character
# abb - character
# region - Factor
# population - num
# total - num
```

4. What is one question or problem that could be explored with those data?

For example, using the murder set, you can question why it happens more in a certain region of US as opposed to other regions. Alabama seems to have the most murders in the US, now knowing this, you can pull more data from Alabama and try to make correlations that may lead to the reason of the actual cause.